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Antisense oligonucleotide modulation of raf gene expression

Description of Technology: This invention relates to compositions and methods for modulating expression of the raf gene, a naturally present cellular gene which has been implicated in abnormal cell proliferation and tumor formation. This invention is also directed to methods for inhibiting hyperproliferation of cells; these methods can be used diagnostically or therapeutically. Furthermore, this invention is directed to treatment of conditions associated with expression of the raf gene.

Patent Listing:

1. **US Patent No.** 5,952,229, Issued on September 14, 1999, "Antisense oligonucleotide modulation of raf gene expression"
   http://patft.uspto.gov/netacgi/nph-Parser?Sect1=PTO2&Sect2=HITOFF&p=1&u=%2Fnetahtml%2FPTO%2Fsearch-bool.html&r=1&f=G&l=50&co1=AND&d=PTXT&s1=5952229.PN.&OS=PN/5952229&RS=PN/5952229

Market Potential: The present invention provides oligonucleotides which are targeted to nucleic acids encoding human raf and are capable of inhibiting raf expression. The present invention also provides chimeric oligonucleotides targeted to nucleic acids encoding human raf. The oligonucleotides of the invention are believed to be useful both diagnostically and therapeutically, and are believed to be particularly useful in the methods of the present invention.

The present invention also comprises methods of inhibiting the expression of human raf, particularly the abnormal expression of raf. These methods are believed to be useful both therapeutically and diagnostically as a consequence of the association between raf expression and hyperproliferation. These methods are also useful as tools, for example for detecting and determining the role of raf expression in various cell functions and physiological processes and conditions and for diagnosing conditions associated with raf expression.

The present invention also comprises methods of inhibiting hyperproliferation of cells using oligonucleotides of the invention. These methods are believed to be useful, for example in diagnosing raf-associated cell hyperproliferation. Methods of treating abnormal proliferative conditions are also provided. These methods employ the oligonucleotides of the invention. These methods are believed to be useful both therapeutically and as clinical research and diagnostic tools.

Benefits:

- Capable of inhibiting raf and human raf expression
- Inhibiting hyperproliferation

Applications:

- Detecting and determining the role of raf expression

Contact:
Delaware Economic Development Office
Direct: (302) 577-8477, Fax: (302) 577-8499